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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,676	03/23/2000	Mayer D. Schwartz	7049 US	2181

7812 7590 03/03/2004
SMITH-HILL AND BEDELL
12670 N W BARNES ROAD
SUITE 104
PORTLAND, OR 97229

EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/535,676

Applicant(s)

SCHWARTZ ET AL.

Examiner

Derrick W. Ferris

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. **Claims 1-4** as amended are still in consideration for this application. Applicant has amended claim 1. Applicant has added claims **3 and 4**.
2. Examiner **withdraws** the 112-first paragraph rejection(s) for Office action filed **10/02/03**. Examiner notes applicant's admission that the replacement of B-type pictures with B-type null pictures is known in the prior art as described in applicant's background.
3. Examiner **withdraws** all obviousness rejections that use the *Balakrishnan* reference for Office action filed **10/02/03**. In addressing applicant's arguments in the response filed **02/02/04**, it may be unclear from *Balakrishnan* that a decoder buffer 22 (see figures 1-3) uses time stamps such that the rejection has been withdrawn. Please find a new rejection below.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,287,182 to Haskell et al. ("*Haskell*") in further view of U.S. Patent No. 5,534,937 A to Zhu et al. ("*Zhu*").

As to **claim 1**, applicant claims transferring a picture frame from the smoothing buffer prior to the picture's decoder time stamp as shown in applicant's figure 3. In particular, applicant recognizes that by transferring pictures from the smoothing buffer

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commencing at a specified time prior to the pictures DTS, the possibility of the decoder buffer overflow is greatly reduced and therefore the quality of the picture is greatly enhanced. *Haskell* discloses a timing recover for VBR video on ATM networks. In particular, *Haskell* discloses the importance of eliminating buffer overflow/underflow at the receiver (e.g., see column 1, lines 46-50 and column 3, lines 33-43). Specifically, *Haskell* discloses alleviating underflow prior to decoding (e.g., see column 2, lines 5-13). See e.g., figure 2 with respect to a receiver and specifically a demultiplexing unit 200. Shown in figure 2, *Haskell* discloses demultiplexing VBR streams of data composed of sequences for a picture based on a decode time stamp. In particular, one example of a smoothing buffer is video data buffer 202 which works in combination with a video display console 203 before entering a decoder 204 (e.g., see column 5, lines 4-20). Examiner would like to point out that part of the purpose of the video data buffer (i.e., smoothing buffer) is to load the buffer early with packets for a frame so that when the frame's decode time comes, the full data for the frame is available for decoding. *Haskell* discloses controlling overflow by adjusting (i.e., increasing) the size of the buffer in order to load the buffer early with packets for a frame so that when the frame's decode time comes, the full data for the frame is available for decoding (e.g., see column 5, lines 46-54). *Haskell* discloses controlling buffer underflow by using a buffer fullness value used to control a jitter delay value which indirectly controls the way information is released from the buffer (e.g., see column 6, lines 9-14). Examiner would like to point out that the information is released from the buffer (i.e., "transferred" in reference to the recited claimed subject matter) based on the DTS (e.g., see column 5, lines 4-20), however, the

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Haskell also recognizes that increasing the size of a buffer (i.e., “loading” in reference to the recited claimed subject matter) helps control overflow which removes the implicit assumption that the video data buffer is only big enough to store a single image frame.

Haskell may be silent or deficient to disclosing a statistically multiplexed stream. In particular, *Haskell* discloses a VBR stream for the decoder but is silent or deficient to the type of stream before the demultiplexer (e.g., see column 1, lines 5-10). Examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to have a statistically multiplexed MPEG transport stream. Examiner notes one skilled in the art would be motivated to multiplex various streams together for the purpose of statistical multiplexing as is inherent in ATM. As such, the background of *Haskell* cures the above-cited deficiency by disclosing that the data is statistically multiplexed (e.g., see column 20, lines 19-24). *Zhu* also helps to further clarify statistical multiplexing with respect to figure 9 for a video source (e.g., such as MPEG video). In particular, a CBR stream is sent using statistical multiplexing as VBR where it is later converted to CBR before entering a video decoder 910. *Zhu* also teaches a smoothing buffer 926 as well.

As to **claim 2**, in addition to applicant’s admission in the background, see e.g., column 5, lines 13-20 of *Haskell*.

As to **claim 3**, data is saved in the video decode buffer as soon as it arrives.

As to **claim 4**, see the combined rejections for claims 1 and 3.

Conclusion

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6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **US005521922A** discloses a (smoothing) buffer 6 at the decoder 7 where a start signal is sent to the decoder 7 to signal when information should be read from the video buffer based on a timing signal (e.g., see column 5, lines 33-46).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

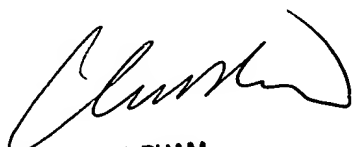
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF 


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 3/1/04